

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 05-016137
 (43)Date of publication of application : 26.01.1993

(51)Int.CI. B29B 11/16
 B29B 15/08
 // B29K105:06

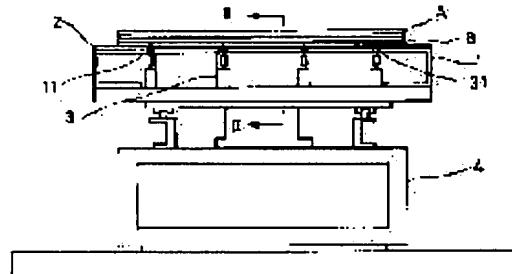
(21)Application number : 03-195113 (71)Applicant : MITSUBISHI PLASTICS IND LTD
 (22)Date of filing : 10.07.1991 (72)Inventor : OKI MAKOTO
 ONUKI YOSHIO
 KAWAGUCHI TAKAYUKI

(54) LOADING DEVICE FOR RESIN IMPREGNATED FIBER SHEET MATERIAL

(57)Abstract:

PURPOSE: To provide a device generating no loading deviation of SMC materials of given numbers on a slide table of a loading device.

CONSTITUTION: A loading device for an SMC material A consists of a slide tattle 1 moved reciprocatingly in the horizontal direction while loading the SMC material A through a glass mat B and a sheet material fixing device 3 moving together with the slide table 1, and needles disposed on the sheet material fixing device 3 appear and disappear intermittently from a plurality of bores 11 bored through the slide table 1 or a tray 2 placed on the slide table. As the glass mat B and the SMC materials A are loaded and fixed without deviation on the slide table 1 by said arrangement, adjustments prior to press molding are not necessary and a molded product of stabilized quality can be manufactured. The convenience of transportation and handling is improved by utilizing the tray 2, and the SMC material A is protected from being soiled.



LEGAL STATUS

[Date of request for examination] 30.06.1998
 [Date of sending the examiner's decision of rejection]
 [Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]
 [Date of final disposal for application]
 [Patent number] 3065722
 [Date of registration] 12.05.2000
 [Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's
decision of rejection]
[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office

* NOTICES *

JPO and NCIPI are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

CLAIMS

[Claim(s)]

[Claim 1] In the loading equipment which judges the resin sinking-in fiber web material sent out to standard size, and **** predetermined number of sheets one by one The slide table which carries out both-way migration horizontally, laying a resin sinking-in fiber web material through a fiberglass mat, It is arranged in the bottom of this slide table side, and consists of a web-material locking device which moves together with a slide table. Loading equipment of the resin sinking-in fiber web material characterized by making the needle arranged in the web-material locking device appear frequently intermittently from two or more pores installed through the tray laid the above-mentioned slide table or on this.

[Translation done.]

* NOTICES *

JPO and NCIPI are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Industrial Application] This invention relates to the loading equipment of a resin sinking-in fiber web material, and two or more sheet number of resin sinking-in fiber web materials (henceforth the "SMC material") plotted to a press-forming machine in detail are related with the equipment operated so that loading gap may not be produced on the slide table of loading equipment.

[0002]

[Description of the Prior Art] Conventionally, exfoliating the film, judge the SMC material of the long picture on which both sides were stuck with the film to standard size, and it is faced loading the predetermined number of sheets on the slide table of sequential loading equipment. Although it deposited on the predetermined KE place or being positioned with the stopper which prepared on the slide table side in the upper part of the slide table which carries out both-way migration horizontally, guiding by the interior material of a proposal If a fiberglass mat is covered with and put on the lower part of the SMC material as reinforcing materials also in which approach, in order to slip between this fiberglass mat and a slide table side In plotting to a press machine, since it is easy to produce loading gap between the SMC material loaded on this fiberglass mat, and a fiberglass mat, and among the SMC material which carry out sequential loading, it was required to correct gap by handicraft.

[0003] Moreover, carried out the clamp stop to the truck etc. and it conveyed, or in order to have conveyed the SMC material of the piled-up predetermined number of sheets near the press machine of degree process, on the conveyor, the SMC material was put directly and conveyed, but the SMC material which has adhesiveness adhered to the circumference facility, and all had a migration handling top problem, while dirt tended to have gone into the SMC material itself.

[0004]

[Means for Solving the Problem] This invention is equipment for solving the above-mentioned technical problem. The summary In the loading equipment which judges the resin sinking-in fiber web material sent out to standard size, and **** predetermined number of sheets one by one The slide table which carries out both-way migration horizontally, laying a resin sinking-in fiber web material through a fiberglass mat, It is arranged in the bottom of this slide table side, and consists of a web-material locking device which moves together with a slide table. It is loading equipment of the resin sinking-in fiber web material characterized by making the needle arranged in the web-material locking device appear frequently intermittently from two or more pores installed through the tray laid the above-mentioned slide table or on this.

[0005]

[Example] Hereafter, this invention is concretely explained based on a drawing.

Drawing_1 shows the loading equipment of the SMC material of this invention with a side elevation, drawing_2 shows the loading condition by this invention with the II-II line sectional view of drawing_1 , and drawing_3 shows the condition at the time of the loading termination by this invention with a sectional view.

[0006] Being loading equipment which judges the SMC material A sent out to standard size, and **** predetermined number of sheets one by one, and laying the SMC material A through a fiberglass mat B, as this invention shown to drawing_1 in a side elevation It is arranged in the bottom of the slide table 1 which carries out both-way migration horizontally on a stand 4, and the 1st page of this slide table. From two or more pores 11 installed through the tray 2 which consists of a web-material locking device 3 which moves together with a slide table 1, and is laid on the above-mentioned slide table 1 or this slide table 1 It is loading equipment of the SMC material made it make the needle 31 arranged in the above-mentioned web-material locking device 3 haunt intermittently.

[0007] The slide table 1 is equipped with the device which carries out both-way migration horizontally by the stroke according to the decision dimension of the SMC material A which **** by this invention. Moreover, the web-material locking device 3 arranged in the bottom of the 1st page of this slide table As shown to drawing_2 and drawing_3 in a sectional view, while moving together with a slide table 1 and carrying out both-way migration horizontally The needle 31 is respectively arranged in two or more cylinders 33 through the spring 32. This needle 31 by actuation of the above-mentioned cylinder 33, and the buffer effect of a spring 32 It has the device which haunts intermittently the direction of arrow-head Y, and a Z direction in the location which coincides with the pore 11 installed through the tray 2 laid a slide table 1 or on this.

[0008] As shown in drawing_2 , the direct front stirrup which covers with and puts a fiberglass mat B on the position on the tray 2 laid on a slide table 1 or this slide table 1 immediately after namely, in the cylinder 33 of the web-material locking device 3 Raise a needle 31 in the direction of arrow-head Y, make it project on a slide table 1 or the 2nd page of a tray from a pore 11, and it thrusts into a fiberglass mat B. After fixing a fiberglass mat B, the SMC material is loaded one by one with a slide table 1 on an arrow head X-1 and the fiberglass mat B which carries out horizontal migration to X-2-way. After dropping a needle 31 to an arrow-head Z direction in a cylinder 33 and taking out a fiberglass mat B and laminated material with the SMC material A of predetermined number of sheets from on a slide table 1 as shown in drawing_3 when loading number of sheets turns into a predetermined number, it moves to degree process.

[0009] Since the laminated material which consists of a fiberglass mat B on the tray 2 beforehand set on the slide table 1 and SMC material A is put on a transport device the whole tray, or is loaded and can be transported when the press machine (not shown) of degree process is being isolated from the above-mentioned loading equipment, while being handling top convenience, the laminated material itself is desirable on [, such as being wide opened from dirt,] quality control.

[0010]

[Effect of the Invention] Since this invention consists of the above-mentioned configuration, it does the following effectiveness so.

*** NOTICES ***

JPO and NCIPI are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
3. In the drawings, any words are not translated.

TECHNICAL FIELD

[Industrial Application] This invention relates to the loading equipment of a resin sinking-in fiber web material, and two or more sheet number of resin sinking-in fiber web materials (henceforth the "SMC material") plotted to a press-forming machine in detail are related with the equipment operated so that loading gap may not be produced on the slide table of loading equipment.

[Translation done.]

*** NOTICES ***

JPO and NCIPI are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
3. In the drawings, any words are not translated.

EFFECT OF THE INVENTION

[Effect of the Invention] Since this invention consists of the above-mentioned configuration, it does the following effectiveness so. That is, since it is lost that the SMC material shifts from a fiberglass mat on the slide table in which it is fixed to a position and the fiberglass mat covered with and put on the bottom on the slide table of loading equipment carries out both-way migration horizontally, while it becomes unnecessary to perform repair of gap in advance of press forming, the mold goods by which quality was stabilized can be obtained. Moreover, when even the press machine of an isolation location conveys the laminated material on a tray by laying the tray on the slide table, while being easy to deal with it, the effectiveness of preventing the dirt of the SMC material is done so.

[Translation done.]

*** NOTICES ***

JPO and NCIPI are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
3. In the drawings, any words are not translated.

TECHNICAL PROBLEM

[Description of the Prior Art] Conventionally, the SMC material of the long picture on which both sides were stuck with the film is judged to standard size, exfoliating the film. Although it deposited on the predetermined KE place or being positioned with the stopper which prepared on the slide table side in the upper part of the slide table which faces loading the predetermined number of sheets on the slide table of sequential loading equipment, and carries out both-way migration horizontally, guiding by the interior material of a proposal If a fiberglass mat is covered with and put on the lower part of the SMC material as reinforcing materials also in which approach, in order to slip between this fiberglass mat and a slide table side In plotting to a press machine, since it is easy to produce loading gap between the SMC material loaded on this fiberglass mat, and a fiberglass mat, and among the SMC material which carry out sequential loading, it was required to correct gap by handicraft.

[0003] Moreover, carried out the clamp stop to the truck etc. and it conveyed, or in order to have conveyed the SMC material of the piled-up predetermined number of sheets near the press machine of degree process, on the conveyor, the SMC material was put directly and conveyed, but the SMC material which has adhesiveness adhered to the circumference facility, and all had a migration handling top problem, while dirt tended to have gone into the SMC material itself.

[Translation done.]

* NOTICES *

JP0 and NCIPI are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

MEANS

[Means for Solving the Problem] This invention is equipment for solving the above-mentioned technical problem. The summary In the loading equipment which judges the resin sinking-in fiber web material sent out to standard size, and **** predetermined number of sheets one by one The slide table which carries out both-way migration horizontally, laying a resin sinking-in fiber web material through a fiberglass mat, It is arranged in the bottom of this slide table side, and consists of a web-material locking device which moves together with a slide table. It is loading equipment of the resin sinking-in fiber web material characterized by making the needle arranged in the web-material locking device appear frequently intermittently from two or more pores installed through the tray laid the above-mentioned slide table or on this.

[Translation done.]

* NOTICES *

JPO and NCIPI are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

EXAMPLE

[Example] Hereafter, this invention is concretely explained based on a drawing. Drawing 1 shows the loading equipment of the SMC material of this invention with a side elevation, drawing 2 shows the loading condition by this invention with the II-II line sectional view of drawing 1, and drawing 3 shows the condition at the time of the loading termination by this invention with a sectional view.

[0006] Being loading equipment which judges the SMC material A sent out to standard size, and **** predetermined number of sheets one by one, and laying the SMC material A through a fiberglass mat B, as this invention shown to drawing 1 in a side elevation It is arranged in the bottom of the slide table 1 which carries out both-way migration horizontally on a stand 4, and the 1st page of this slide table. From two or more pores 11 installed through the tray 2 which consists of a web-material locking device 3 which moves together with a slide table 1, and is laid on the above-mentioned slide table 1 or this slide table 1 It is loading equipment of the SMC material made it make the needle 31 arranged in the above-mentioned web-material locking device 3 haunt intermittently.

[0007] The slide table 1 is equipped with the device which carries out both-way migration horizontally by the stroke according to the decision dimension of the SMC material A which **** by this invention. Moreover, the web-material locking device 3 arranged in the bottom of the 1st page of this slide table As shown to drawing 2 and drawing 3 in a sectional view, while moving together with a slide table 1 and carrying out both-way migration horizontally The needle 31 is respectively arranged in two or more cylinders 33 through the spring 32. This needle 31 by actuation of the above-mentioned cylinder 33, and the buffer effect of a spring 32

*** NOTICES ***

JPO and NCIPI are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] A side elevation shows the loading equipment of the SMC material of this invention.

[Drawing 2] The II-II line sectional view of drawing 1 shows the loading condition by this invention.

[Drawing 3] A sectional view shows the condition at the time of the loading termination by this invention.

[Description of Notations]

1 Slide Table

11 Pore

2 Tray

3 Web-Material Locking Device

31 Needle

33 Cylinder

A Resin sinking-in fiber web material (SMC material)

B Fiberglass mat

[Translation done.]

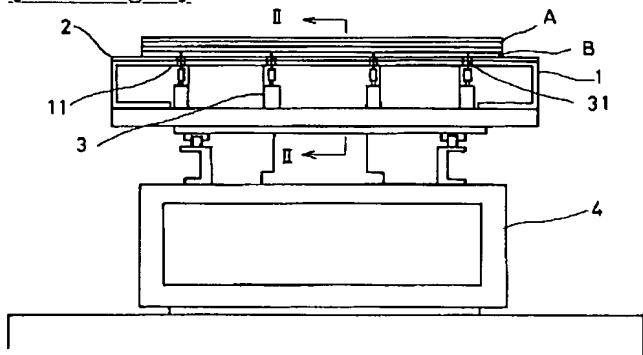
* NOTICES *

JPO and NCIPI are not responsible for any damages caused by the use of this translation.

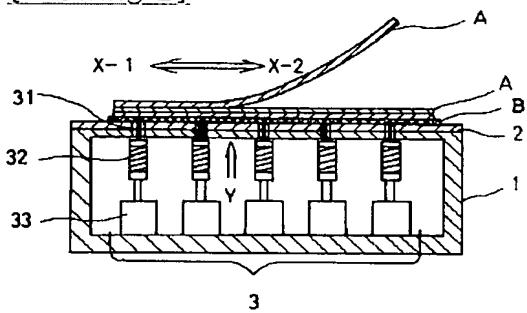
1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DRAWINGS

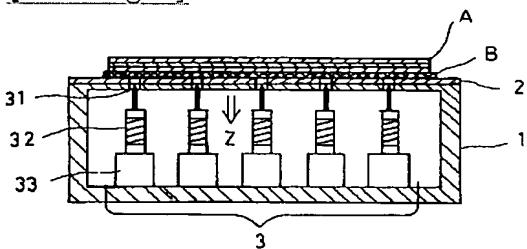
[Drawing 1]



[Drawing 2]



[Drawing 3]



[Translation done.]